DEFENSE INFORMATION SYSTEMS AGENCY
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IN REPLY REFER TO: Joint Interoperability Test Command (JTE) **31 July 12**

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Avaya Ethernet Routing Switch (ERS)5600 Series, from Release 6.2.100.073 to Release 6.2.100.085

References: (a) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008
(c) through (f), see Enclosure

1. References (a) and (b) establish the Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The Avaya ERS5600 with Release 6.2.100.073 is hereinafter referred to as the System Under Test (SUT). The SUT was originally certified as an Assured Services Local Area Network (ASLAN) Layer 2 Access switch, Reference (c). The vendor submitted Desktop Review (DTR) 1 to include software release 6.2.100.085, which fixes six Information Assurance (IA) issues noted during the initial test event. JITC conducted initial testing using product requirements derived from the Unified Capabilities Requirements (UCR), Reference (d) and test procedures, Reference (e). Any new discrepancy noted in the operational environment will be evaluated for impact on the existing certification. These discrepancies will be adjudicated to the satisfaction of Defense Information Systems Agency (DISA) via a vendor Plan of Action & Milestones (PoAM), which will address all new critical Test Discrepancy Reports (TDRs) within 120 days of identification. JITC does not certify any other configurations, features, or functions, except those cited in this memorandum. This certification expires upon changes that affect interoperability, but no later than three years from 13 December 2011, which is the date the DISA Certifying Authority (CA) provided a positive recommendation for the initial certification.

3. JITC approves the extension of this certification for DTR 1. Approval is based on Verification and Validation (V&V) IA testing conducted from 11 through 15 June 2012 by the US Army Information System Engineering Command (ISEC) Technology Integration Center (TIC), a Department of Defense (DoD) Component Test Lab. The DISA CA provided a positive recommendation for DTR 1 on 23 July 2012. This positive recommendation was based on IA test data collected during the V&V test. The results of the tests for this product are published in a separate updated IA report, Reference (f).

4. Table 1 provides a UC APL product summary. Table 2 provides the SUT interface interoperability status, and Table 3 provides the Capability Requirements (CR) and Functional

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Requirements (FR) status. The threshold CR/FR for ASLAN components are established by Section 5.3.a of Reference (d) and were used to evaluate the interoperability of the SUT.

Table 1. UC APL Product Summary

Component[1]	Release[2]	Sub-Component[1]	Certification Applicability		
			Core	Distribution	Access
ERS5632FD **ERS5650TD-PWR** ERS5650TD **ERS5698TFD-PWR** ERS5698-TFD	6.2.100.073	**RPSU 15 chassis** **RPSU Power Supply**	No	No	Yes

NOTES:
1. Components bolded and underlined were tested by JITC. The other components in the family series were not tested; however, they utilize the same software and similar hardware and JITC analysis determined them to be functionally identical for interoperability certification purposes and they are also certified for joint use.
2. The software release was updated with this DTR after verification and validation testing.

LEGEND:

APL	Approved Products List	RPSU	Redundant Power Supply Unit
DTR	Desktop Review	UC	Unified Capabilities
JITC	Joint Interoperability Test Command		

Table 2. SUT Interface Interoperability Status

Interface	Applicability			UCR 2008, Change 2 Reference	Threshold CR/FR[1]	Status	Remarks
	Co	D	A				
10Base-X	C	C	C[2]	5.3.1.3.1	1-6	Met[3]	SUT met CRs and FRs with the following IEEE Standard: 802.3i (10BaseT)
100Base-X	R	R	C[2]	5.3.1.3.1	1-6	Met	SUT met CRs and FRs with the following IEEE Standard: 802.3u (100Base-T)
1000Base-X	R	R	C[2]	5.3.1.3.1	1-6	Met	SUT met CR and FRs with the following IEEE Standards: 802.3ab (1000Base-T), 802.3z (1000Base-SX, 1000Base-LX)

Table 2. SUT Interface Interoperability Status (continued)

Interface	Applicability			UCR 2008, Change 2 Reference	Threshold CR/FR[1]	Status	Remarks
	Co	D	A				
10000Base-X	C	C	C	5.3.1.3.1	1-6	Met	SUT met CRs and FRs with the following IEEE Standard: 802.3ae (10GBASE-SR, 10GBase-LR)
802.11a	C	C	C	5.3.1.3.1/5.3.1.7.2	1-6	Not Tested[4]	
802.11b	C	C	C	5.3.1.3.1/5.3.1.7.2	1-6	Not Tested[4]	
802.11g	C	C	C	5.3.1.3.1/5.3.1.7.2	1-6	Not Tested[4]	
802.11n	C	C	C	5.3.1.3.1/5.3.1.7.2	1-6	Not Tested[4]	
802.16	C	C	C	5.3.1.3.1/5.3.1.7.2	1-6	Not Tested[4]	

NOTES:
1. The SUT high-level CR and FR ID numbers depicted in the Threshold CRs/FRs column can be cross-referenced in Table 3. These high-level CR/FR requirements refer to a detailed list of requirements provided in Enclosure 3 of the original certification.
2. Core and Distribution products must minimally support 100Base-X (802.3u) and 1000Base-X (802.3z). Access products must minimally support one of the following standards: 802.3i (10BaseT), 802.3j (10BaseF), 802.3u (100BaseT/F), 802.3z (1000BaseF), or 802.3ab (1000BaseT). Other rates and standards may be provided as conditional interfaces.
3. JITC tested all these interfaces with the exception of the 10BaseT interface. JITC analysis determined the 10BaseT interface is low risk for certification based on the vendor's LoC to the IEEE 802.3i standard and the testing data collected at all other data rates.
4. The SUT does not support this interface. This interface is not required for a core, distribution, or access switch.

LEGEND:

A	Access	ID	Identification
C	Conditional	IEEE	Institute Of Electrical And Electronics Engineers, Inc.
Co	Core	JITC	Joint Interoperability Test Command
CR	Capability Requirement	LoC	Letter of Compliance
D	Distribution	R	Required
FR	Functional Requirement	SUT	System Under Test
		UCR	Unified Capabilities Requirements

Table 3. SUT CR and FR Status

CR/FR ID	Capability/Function	Applicability[1]	UCR Reference	Status	Remarks
1	**General Performance Parameters**				
	Performance Parameters	Required	5.3.1.3	Met	
	Port Interface Rates	Required	5.3.1.3.1	Met	
	Port Parameter Requirements	Required	5.3.1.3.2	Met	
	Class of Service Markings	Required	5.3.1.3.3	Met	
	VLAN Capabilities	Required	5.3.1.3.4	Met	
	Protocols	Required	5.3.1.3.5	Met	
	QoS Features	Required	5.3.1.3.6	Met	
	Network Monitoring	Required	5.3.1.3.7	Met	
	Security	Required	5.3.1.3.8	Met[2]	
2	**E2E Performance Requirements**				
	Voice Services	Required	5.3.1.4.1	Met[3]	
	Video services	Required	5.3.1.4.2	Met[3]	
	Data services	Required	5.3.1.4.3	Met[3]	

Table 3. SUT CRs and FRs Status (continued)

CR/FR ID	Capability/ Function	Applicability[1]	UCR Reference	Status	Remarks
3	**NM Requirements**				
	Configuration Control	Required	5.3.1.6.1	Met	
	Operational Changes	Required	5.3.1.6.2	Met	
	Performance Monitoring	Required	5.3.1.6.3	Met	
	Alarms	Required	5.3.1.6.4	Met	
	Reporting	Required	5.3.1.6.5	Met	
4	**Engineering Requirements**				
	Physical Media	Required	5.3.1.7.1	Met	
	Traffic Engineering	Required	5.3.1.7.3	Met[4]	Configured with four queues, each set to 25% of total bandwidth.
	Availability	Required	5.3.1.7.6	Met	100% availability during test. Met by vendor LoC
	Redundancy	Conditional	5.3.1.7.7	Met	
5	**MPLS**				
	MPLS Requirements	Conditional	5.3.1.8.4.1	Not Tested[5]	
	MPLS VPN Augmentation to VLANs	Conditional	5.3.1.8.4.2	Not Tested[5]	
6	**IPv6 Requirements**				
	Product Requirements	Required	5.3.5.4	Partially Met[6]	

NOTES:

1. The annotation of 'required' refers to a high-level requirement category. The applicability of each sub-requirement is provided in Enclosure 3 of the original certification. The system under test does not need to provide conditional requirements. However, if a capability is provided, it must function according to the specified requirements.
2. Refers to IA requirements described in reference (d) Section 5.4. Detailed IA requirements are included in Reference (f).
3. This requirement was verified and met using simulated voice, video, and data traffic in an operational emulated environment to meet E2E requirements. The SUT must be deployed in accordance with deployment guide and engineering guidelines provided in UCR 2008 Change 2, paragraph 5.3.1.4.
4. This requirement was met with the following stipulations: It is the site's responsibility to configure the SUT in a manner which meets the engineering requirements listed in Section 11.2 d. of Enclosure 2 of the original certification and that does not create a single point of failure which could impact more than 96 C2 users. The SUT did not meet the stack failover requirement with Brocade when the LACP links connected to Unit 1 and Unit 2 and a failover occurred. This discrepancy was adjudicated by DISA on 4 October 2011 as having a minor impact based on vendor including this discrepancy in the deployment guide.
5. MPLS was not tested and is not certified for joint use. MPLS is conditional and; therefore, not required for a Core, Distribution, or Access switch.
6. The SUT does not support scope address architecture zones in accordance with RFC 4007. This discrepancy was adjudicated by DISA as having a minor impact with vendor POA&M of 1 April 2012.

LEGEND:

C2	Command And Control	MPLS	Multiprotocol Label Switching
CR	Capability Requirement	NM	Network Management
DISA	Defense Information Systems Agency	POA&M	Plan of Action and Milestones
E2E	End-to-End	QoS	Quality of Service
FR	Functional Requirement	RFC	Request for Comment
IA	Information Assurance	SUT	System Under Test
ID	Identification	UCR	Unified Capabilities Requirements
IPv6	Internet Protocol version 6	VLAN	Virtual Local Area Network
LACP	Link Aggregate Control Protocol	VPN	Virtual Private Network
LoC	Letter of Compliance		

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5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at https://stp.fhu.disa.mil. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at http://jit.fhu.disa.mil (NIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at http://jitc.fhu.disa.mil/tssi. All associated data is available on the Defense Information Systems Agency Unified Capability Coordination Office (UCCO) website located at http://www.disa.mil/ucco/.

6. The JITC point of contact is Capt. Stephane Arsenault, DSN 879-5269, commercial (520) 538-5269, FAX DSN 879-4347, or e-mail to Stephane.P.Arsenault.fm@mail.mil. JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The Tracking Number for the SUT is 1117301.

FOR THE COMMANDER:

Enclosure a/s

for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

Distribution (electronic mail):
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U.S. Joint Forces Command, Net-Centric Integration, Communication, and Capabilities Division, J68

ADDITIONAL REFERENCES

(c) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Avaya Ethernet Routing Switch (ERS)5600 Series with Release 6.2.100.073," 16 December 2011
(d) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008, Change 2," 31 December 2010
(e) Joint Interoperability Test Command, "ASLAN Component Test Plan (UCTP)," November 2010
(f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of Avaya Ethernet Router Switch (ERS)5600 Series 6.2.1xx (Tracking Number 1117301)," Draft